APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,336	11/28/2000	Kingsum Chow	42390P9919	7224

8791 7590 06/21/2006		EXAMINER
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SEVENTH FLOOR		ART UNIT / PAPER NUMBER
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DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*28 February 2006*</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,26-28 and 31* is/are rejected.

7)☒ Claim(s) *24,25,29 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

This Office action is in response to Applicant's amendment and request for

reconsideration filed on February 28, 2006. Claims 1-31 are presented for further examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 27-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

With regard to claim 27, "the first efficiency rating" lacks antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   **Claims 1-5, 8, 10-15, 20-23, 26-28, and 31 are rejected under 35 U.S.C. 103(a) as**

being unpatentable over Logan (U.S. Patent No. 6,578,066) and Watson (U.S. Patent

Number 6,223,209).

In considering claims 1, 12, 22, and 27, Logan discloses a method for locating an

efficient server among servers mirroring a network site, comprising:

Receiving by a first server (e.g. switch 108 receives a DNS query, Col 4, lines 47-49) an

incoming connection from a client (e.g. client 102) in communication with said servers over a

network (Figure 1, Internet);

Determining a first server being geographically closer to a client than a second server (Co

10, lines 6-15);

Providing a first efficiency rating (proximity i.e. more closely located, Col 5, line 15 or

Col 10, lines 6-51) for communication between the first server and the client, wherein the first

efficiency rating has an associated (i.e. both are server metrics) first predicted reliability rating

(health of the server, Col 5, lines 60-65 and Col 6, lines 14-26) associated with the first server;

Providing a second efficiency rating (proximity i.e. more closely located, Col 5, line 15

or Col 10, lines 6-15) for communication between the second server and the client, wherein the

second efficiency rating has an associated (i.e. both are server metrics) second predicted

reliability rating (health of the server, Col 5, lines 60-65 and Col 6, lines 14-26) associated with

the second server;

Directing the client to subsequently communicate with the best server (Col 11, 61-67).

Logan disclosed substantial features of the claimed invention however Logan failed to

specifically recite directing the client to subsequently communicate with the second server when

the second efficiency rating is worse than the first efficiency rating but the second predicted

reliability is better than the first predicted reliability. Nonetheless such a forwarding scheme will

occur when for instance the second server is farther away from the client than the first server and

the second server is healthier (e.g. able to respond to requests) than the first server (e.g. not able

to respond to requests and therefore removed from the list of available servers) (Col. 7, lines 1-9). Thus, given this particular network configuration it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to direct requests to subsequently communicate with the second server when the second efficiency rating is worse than the first efficiency rating but the second predicted reliability is better than the first predicted reliability so that network requests are not directed to down servers.

In considering claim 2, Logan further discloses that providing the efficiency rating comprises either measuring the efficiency between the first server and the client or looking up a previously measured communication efficiency between the first server and the client (Col 10, lines 6-51, lookup regional registries).

In considering claim 3, Logan further discloses that directing comprises returning a network resource to the client containing at least one reference (IP address) therein to the second server (Col 4, lines 51-59).

In considering claim 4 and 14, Watson further discloses that the reference comprises a web page element ("link") linking to the second server such that activation thereof by the client causes the client to contact the second server (col. 4, lines 1-3, "primary or home server, www.xyz.com, then returns a home page with subsequent links pointing to appropriately selected satellite server, e.g. www.xyz2.com," col. 4, lines 2-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the embedded webpage links as

taught by Watson in the combined Logan and Farber system since such a configuration reduces

bandwidth consumption by not requiring the request to resubmitted to another server.

In considering claim 5 and 15, Watson further discloses that the network resource

received from the first server comprises a tag based structure having embedded identifiers

specifying resources located on the network (i.e. a home page with links, col. 4, lines 1-3),

wherein at least one reference is an embedded identifier specifying a network resource of the

second server (i.e. "links pointing to appropriately selected satellite server, e.g.,

www.xyz2.com"). It would have been obvious to one of ordinary skill in the art at the time of

the invention to incorporate the embedded webpage links as taught by Watson in the combined

Logan and Farber system since such a configuration reduces bandwidth consumption by not

requiring the request to resubmitted to another server.

In considering claim 8, Logan further discloses storing efficiency ratings for

communication with the client on a storage device (see any of tables I-VI, in Cols 7-10);

However Logan does not specifically recite retrieving at least one of the stored efficiency

ratings from said second server over a communication channel different from the network.

Nonetheless Examiner takes Official notice that it was widely known in the art at the time of

Applicant's invention to retrieve remotely stored network information over a communication

channel different from the network a server provides content on in order to ensure the stored

information can be retrieved even when the network is overloaded. Thus, it would have been

obvious to one of ordinary skill in the art at the time of Applicant's invention to retrieve the

stored efficiency ratings from said second server over a communication channel different from

the network on in order to ensure the stored information can be retrieved even when the network

is overloaded.

In considering claim 10 and 20, Logan further discloses that the connection from the

client is generated by a browser (Col 3, line 46), and wherein the efficiency rating measures

efficiency of delivering web page resources to the client (i.e. based on the proximity of the

server).

In considering claims 11 and 21, the combined system Logan further discloses contacting

the first server in accordance with its being geographically closest to the client (i.e. in some

cases, the server selection will result in the closest geographical server to be selected), and

contacting the second server in accordance with the second server having the higher efficiency

rating notwithstanding the first server being geographically closest to the client (i.e. in others,

even if the first server is closer geographically, it will still contact the second server if it is

overloaded – see Logan, col. 9, lines 60-62, "generally it is preferably best if users within a

region are associated with servers in or near that region, unless the nearby server is down or

overloaded"). Logan further discloses contacting a resolution service to determine which server

has a closest geographical proximity to the client (Logan, col. 10, lines 13-51).

Claim 21 presents substantially the same limitation as claim 11. Note that claim 21

further elaborates that a "network site identifier" is provided to the resolution service. This

feature is further taught by Logan (col. 10, lines 37-51, "domain name").

Regarding claim 12, the claim performs the same method steps described in claims 1 and 2 combined. Therefore, claim 12 is rejected for the same reasons given regarding claims 1 and 2.

In considering claim 13, claim 13 presents instructions for performing the same steps as claim 3, and is thus rejected for the same reason as claim 3.

In considering claims 23 and 28, Logan disclosed determining said first efficiency rating of the first server, based at least in part on first contacting by the client of the first server (i.e. client connects); and

Logan disclosed determining the second efficiency rating of the second server, based at least on part on second contacting by the first server of the second server (measurement of reliability from the first server, Logan col. 6, lines 34-41).

In considering claims 26 and 31, Watson further discloses that if the second efficiency rating exceeds the first efficiency rating, then receiving a web page ("home page") from the first server with all web links directed towards the second server, and if the first efficiency rating exceeds the second efficiency rating, then receiving the web page from the first server with all web links directed towards the first server (col. 4, lines 1-9, "returns a home page with subsequent links point to appropriately selected satellite server," wherein the satellite server selected is the "primary or satellite server closest to each client entry in the table.").

2.   **Claims 6, 9, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan and Watson, in view of Emens et al. (U.S. Patent No. 6,606,643, hereinafter "Emens").**

In considering claim 6, Logan discloses a method of dynamically selecting a closest server to the client. However, Logan does not disclose that the dynamic method includes returning a network resource to the client such that the resource causes the client to contact the second server so that the second server can measure a second efficiency rating for client communication, and retrieving the second efficiency rating. Nonetheless, this sort of dynamic response-time detection method for determining communication efficiency is well known, as evidenced by Emens.

In a similar art, Emens discloses a system for selecting from among a group of mirrored servers to communicate with a requesting client (col. 7, lines 57-62), wherein a first server returns a network resource to the client (col. 8, lines 20-23, "the host server 12 returns the requested web content, but also returns a list of mirror server addresses with the web content"), configures the network resource to cause the client to contact the second server so that the second server can measure a second efficiency rating for communication with the client (col. 8, lines 25-40, wherein each applet from the client "makes an identical HTTP mirror server request to its corresponding mirror server... [and] measures the round trip latency"), and retrieves the second efficiency rating (col. 8, lines 38-40, "round trip times are compared between applets and a 'winner applet' having the lowest time is identified.").

Thus, the claimed method of determining an efficiency rating of a second mirrored server in a mirrored server system is well known. A person having ordinary skill in the art would have

readily recognized the desirability and advantages of using the well-known method taught by

Emens in the system taught by Logan so that the system could select a current, most efficient

mirrored server, rather than relying on a potentially dated efficiency table. Thus, it would have

been obvious to include the efficiency rating mechanism taught by Emens in the system taught

by Watson, Farber, and Cherkasova.

In considering claim 9, the combined system of Logan, Watson, and Emens as discussed

with regard to claim 6, discloses providing the efficiency rating by determining an end-user

delay (i.e. "round trip latency") between the client's request for network resources to a server,

and a client's receipt of the resource from the server (Emens, col. 8, lines 20-40, wherein the

client makes HTTP requests to each of the mirrored servers, receives responses, and then

measures the latency between each communication). It would have been obvious to a person

having ordinary skill in the art to include this feature in the system taught by Logan and Watson,

so that the system could select a current, most efficient mirrored server, rather than relying on a

potentially dated efficiency table.

In considering claim 16, claim 16 presents an article for performing the same method

taught in claim 6. Therefore, claim 16 is rejected for the same reasons as claim 6.

In considering claim 19, claim 19 recites an apparatus for performing the method of

claim 9, and is thus rejected for the same reasons as claim 9.

3.   **Claims 7, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Logan and Watson, in view of Freeman et al. (U.S. Patent No. 6,922,724, hereinafter

"Freeman").

In considering claims 7 and 17, although the system taught by Logan discloses substantial

features of the invention, it fails to disclose that each of the servers stores efficiency ratings on a

commonly accessible storage device. Instead, the Logan disclosed storing a table with such

information however Logan is silent as to where such as table is stored. Nonetheless it was well

known in the art at the time of the invention to store data on a commonly accessible storage

device such that a group of servers can access the data, as evidenced by Freeman. In an

analogous art, Freeman disclosed a commonly accessible storage device for storing server

information needed by a group of servers (see either persistent or dynamic stores, Freeman

sections 2.1 and 2.2 in Columns 5 and 6). Thus, it would have been obvious to store the

efficiency ratings in the combined Watson and Farber system on a commonly accessible storage

device as disclosed by Freeman, so that the data is accessible to all servers (Col 6, lines 33-37).

In considering claim 18, Freeman further discloses storing efficiency ratings for

communication with the client on a storage device (e.g. dynamic store, Col 6, lines 31-37); and

retrieving at least one of the stored efficiency ratings from said second server over a

communication channel different from the network (communication with the dynamic store over

the farm management interface, Figure 2 and Col 5, lines 52-62).

Allowable Subject Matter

Claims 24, 25, 29, and 30 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims. Claims 29 and 30 must also overcome the outstanding

112 2nd ¶ rejections.

Response to Arguments

Applicant's arguments are moot in view of the new grounds of rejection set forth.

Conclusion

The prior art made of record, in PTO-892 form, and not relied upon is considered

pertinent to applicant's disclosure.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,
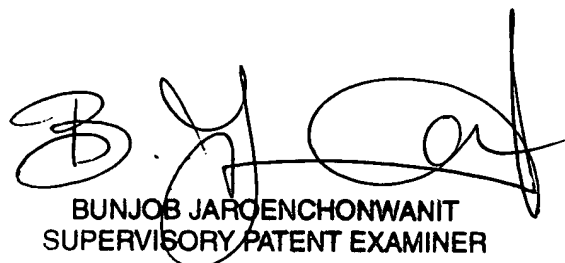
however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sean Reilly whose telephone number is 571-272-4228. The

examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 30, 2006

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER